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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,781	10/15/2001	Makonnen Melaku	23484-021	3772

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EXAMINER
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BATURAY, ALICIA

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 01/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/977,781	Applicant(s) MELAKU ET AL.	
	Examiner Alicia Baturay	Art Unit 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12152004</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-40 are pending.

#### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

3. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code on pages 1, 7, 9 and 11. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 1-3, 5, 10, 13, 18, 26-30, 33, and 34 are rejected under 35 U.S.C. 102(e) as being unpatentable over Bloebaum (U.S. 6,535,815).
6. As to claim 1, Bloebaum discloses a method for providing quality of service to the edge of a network, the edge of the network including a plurality of access networks, the method comprising: determining a user's presence in more than one of the plurality of access networks (Bloebaum, Fig. 1, elements 12 and 100); determining a specified QoS for the user (Bloebaum, col. 5, lines 29-30); obtaining QoS available data related to the QoS available from the plurality of access networks in which the user is present (Bloebaum, col. 2, lines 58-65), at least one access network being adapted to communicate with wireless devices (Bloebaum, col. 3, lines 12-20); and managing the edge of the network based at least in part on the specified QoS for the user and on the QoS available data (Bloebaum, col. 5, lines 30-51).
7. As to claim 2, Bloebaum discloses the invention substantially including the method where managing the edge of the network comprises: in response to the QoS available data, directing a session for the user to an access network that is appropriate for the specified QoS (Bloebaum, col. 5, lines 30-51).

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8. As to claim 3, Bloebaum discloses the invention substantially including the method where managing the edge of the network comprises managing the QoS provided to the user (Bloebaum, col. 5, lines 30-51).
9. As to claim 5, Bloebaum discloses the invention substantially including the method where managing QoS comprises tracking user device movement among access networks during a user session (Bloebaum, col. 2, lines 54-65).
10. As to claim 10, Bloebaum discloses a method for providing quality of service to the edge of a network, the edge of the network including a plurality of access networks (Bloebaum, Fig. 1, elements 24 and 30), the method comprising: determining a user's presence in more than one of the plurality of access networks (Bloebaum, Fig. 1, elements 12 and 100); receiving a request from the user for a specified QoS (Bloebaum, col. 5, lines 30-51); obtaining QoS available data related to the QoS available from the plurality of access networks in which the user is present (Bloebaum, col. 2, lines 58-65), at least one access network being adapted to provide access to wireless devices (Bloebaum, col. 3, lines 12-20); and in response to the QoS available data, directing a session for the user to an access network that can meet the specified QoS (Bloebaum, col. 7, lines 18-21).
11. As to claims 13 and 33, Bloebaum discloses the invention substantially including the method where the method further comprises tracking user device movement among access networks during a user session (Bloebaum, col. 2, lines 54-65).

12. As to claim 18, Bloebaum discloses a system for providing quality of service to the edge of a network, the edge of the network including a plurality of access networks, the system comprising: a database operative to store data associated with access network resources (Bloebaum, col. 3, lines 49-57); a LMQB device in communication with the database, having an interface for communicating over a network (Bloebaum, col. 3, lines 34-35), and operative to: determine a user's presence in more than one of the plurality of access networks (Bloebaum, Fig. 1, elements 12, 18, and 100); determine a specified QoS for the user (Bloebaum, col. 5, lines 29-30); obtain QoS available data related to the QoS available from the plurality of access networks in which the user is present (Bloebaum, col. 2, lines 58-65), at least one access network being adapted to communicate with wireless devices (Bloebaum, col. 3, lines 12-20); and manage the edge of the network based at least in part on the specified QoS for the user and on the QoS available data (Bloebaum, col. 5, lines 30-51).
13. As to claim 26, Bloebaum discloses a wireless device adapted for communicating with an access network comprising: means for receiving QoS selection data from a user (Bloebaum, col. 5, lines 30-36); and means for communicating the QoS selection data to an access network (Bloebaum, col. 7, lines 18-21).
14. As to claim 27, Bloebaum discloses the invention substantially including the wireless device where the receiving means comprises a selection menu means for providing a menu of QoS selections to a user (Bloebaum, col. 5, lines 30-36).

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15. As to claim 28, Bloebaum discloses the invention substantially including the wireless device where the wireless device further comprises means for mapping a QoS selection data received from the selection menu means to QoS parameter data (Bloebaum, col. 5, lines 30-51) and for supplying the QoS parameter data to the means for communicating (Bloebaum, col. 7, lines 18-21).
16. As to claim 29, Bloebaum discloses a memory for storing data for access by an application program being executed on a data processing system, the memory comprising: access network records for storing data related to the resources available from a plurality of access networks (Bloebaum, col. 3, lines 49-57); and QoS parameter records for storing data related to QoS parameters obtained in connection with a user session, transmission of the user session occurring over at least one of the plurality of access networks (Bloebaum, col. 5, lines 30-51).
17. As to claim 30, Bloebaum discloses a method for providing quality of service to the edge of a network, the edge of the network including a plurality of access networks, the method comprising: determining a user's presence in more than one of the plurality of access networks by using a LMQB to query a presence server causing the presence server to send a multicast message to appropriate network elements and to receive back from each appropriate network element an indication of whether the user is present in a particular access network (Bloebaum, col. 5, lines 26-29); determining a specified QoS for the user (Bloebaum, col. 5, lines 29-30); obtaining QoS available data related to the QoS available

from the plurality of access networks in which the user is present by using the LMQB to send a multicast query message to identified network elements (Bloebaum, col. 6, lines 13-42), at least one access network being adapted to communicate with wireless devices (Bloebaum, col. 3, lines 12-20); and in response to the QoS available data, directing a session for the user to an access network that can meet the specified QoS (Bloebaum, col. 5, lines 30-51).

18. As to claim 34, Bloebaum discloses a system for providing quality of service to the edge of a network, the edge of the network including a plurality of access networks, the system comprising: a database operative to store data associated with access network resources (Bloebaum, col. 3, lines 49-57); a LMQB device in communication with the database, having an a QoS API interface for communicating over a network (Bloebaum, col. 3, lines 34-35), the LMQB device comprising means for determining a user's presence in more than one of the plurality of access networks (Bloebaum, Fig. 1, elements 12 and 100); means for determining a specified QoS for the user (Bloebaum, col. 5, lines 29-30); means for obtaining QoS available data related to the QoS available from the plurality of access networks in which the user is present (Bloebaum, col. 2, lines 58-65), at least one access network being adapted to communicate with wireless devices (Bloebaum, col. 3, lines 12-20); and means for managing the edge of the network based at least in part on the specified QoS for the user and on the QoS available data (Bloebaum, col. 5, lines 30-51).



***Claim Rejections - 35 USC § 103***

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 4, 6-9, 11, 12, 14-17, 19-25, 31, 32, and 35-40 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bloebaum and further in view of Jorgensen (U.S. 6,640,248).

21. As to claim 4, Bloebaum discloses managing the network resources (Bloebaum, col. 5, lines 30-51). But Bloebaum does not expressly disclose dynamically allocating these resources. However, Jorgensen does teach the method where the network comprises network resources and where managing the edge of the network comprises dynamically allocating network resources (Jorgensen, col. 15, lines 19-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Bloebaum with Jorgensen in order to provide wireless access that has comparable QoS to that of wireline services (Jorgensen, col. 3, lines 23-26).

22. As to claims 6 and 14, the combination of Bloebaum and Jorgensen (Bloebaum-Jorgensen) discloses the invention substantially including the method where the access networks are selected from the group of access networks consisting of WAN (Jorgensen, col. 6, lines 26-27), WLAN, UMTS, Bluetooth, hiperLAN, WCDMA and CDMA networks.

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23. As to claims 7 and 15, Bloebaum-Jorgensen discloses the invention substantially including the method where the access networks include at least one of a radio access network (Jorgensen, Fig. 2D, element 306d; col. 16, lines 59-66) and a packet data serving node (Jorgensen, Fig. 2D, element 136f; col. 34, lines 11-13).
24. As to claims 8 and 16, Bloebaum-Jorgensen discloses the invention substantially including the method where the specified QoS includes parameters selected from the group of parameters consisting of rating, delay, jitter, (Jorgensen, col. 21, lines 63-67) packet loss, and bandwidth.
25. As to claims 9 and 17, Bloebaum-Jorgensen discloses the invention substantially including the method where a specified QoS for the user includes a specified mean value and standard deviation for QoS parameters (Jorgensen, col. 74, lines 13-32).
26. As to claims 11 and 31, Bloebaum-Jorgensen discloses the invention substantially including the method where the method dynamically obtains QoS available data and dynamically directs a session (Jorgensen, col. 15, lines 19-22).
27. As to claims 12 and 32, Bloebaum-Jorgensen discloses the invention substantially including the method where the network comprises network resources and where the method further comprises obtaining traffic data from the network resources and dynamically allocating network resources based at least in part on the traffic data (Jorgensen, col. 15, lines 19-22).

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28. As to claim 19, Bloebaum-Jorgensen discloses the invention substantially including the system where the interface includes a QoS API (Jorgensen, col. 22, lines 16-24).

29. As to claims 20 and 35, Bloebaum-Jorgensen discloses the invention substantially including the system where the LMQB device comprises: a RSVP module adapted to receive RSVP data from the interface and operative to reserve resources in accordance with the RSVP data (Jorgensen, col. 43, lines 24-30).

30. As to claims 21 and 36, Bloebaum-Jorgensen discloses the invention substantially including the system where the LMQB device comprises: a DiffSERV module adapted to receive DiffSERV data from the interface and operative to classify data in accordance to the DiffSERV data (Jorgensen, col. 64, line 63 – col. 65, line 4).

31. As to claims 22 and 37, Bloebaum-Jorgensen discloses the invention substantially including the system where the LMQB device comprises: a static negotiation module adapted to receive data associated with network resources from the database (Jorgensen, col. 66, lines 30-38) and operative to establish quality of service parameters for the duration of the mobile's data session (Jorgensen, col. 52, line 56 – col. 53, line 16).

32. As to claims 23 and 38, Bloebaum-Jorgensen discloses the invention substantially including the system where the LMQB device comprises: a dynamic negotiation module adapted to receive data associated with network resources from the database and to receive a request for

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a change of a specified QoS while a session is in progress, the dynamic negotiation module being operative to establish and modify quality of service parameters dynamically during a mobile's data session (Jorgensen, col. 58, lines 51-60).

33. As to claims 24 and 39, Bloebaum-Jorgensen discloses the invention substantially including the system where the LMQB device comprises: a service level agreement (SLA) module adapted to receive a request from a user and operative to obtain SLA data from the database related to the agreement between the user and a service provider in response to the request (Jorgensen, col. 52, line 56 – col. 53, line 16).

34. As to claims 25 and 40, Bloebaum-Jorgensen discloses the invention substantially including the system where the LMQB device comprises: a traffic monitor module adapted to communicate with the access networks and operative to obtain the resource availability of the access networks (Jorgensen, col. 15, lines 19-25) and to route traffic based at least in part on a user's presence and on service demand (Jorgensen, col. 21, lines 16-27).

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Baturay whose telephone number is (571) 272-3981. The examiner can normally be reached at 7:30am - 5pm, Monday - Thursday, and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB



**BHARAT BAROT  
PRIMARY EXAMINER**